

Official

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REMARKS

Careful review and examination of the subject application are noted and appreciated.

CLAIM OBJECTIONS

The objection to claim 20 has been obviated by appropriate amendment and should be withdrawn. Claim 20 has been cancelled.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

The rejection of claim 3 under 35 U.S.C. §112, second paragraph, has been obviated by appropriate amendment and should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-20 under 35 U.S.C. §103 as being unpatentable over Dischler '287 is respectfully traversed and should be withdrawn.

Dischler teaches a variable frequency clock control for microprocessor-based computer systems (Title).

In contrast, the present invention provides an apparatus comprising a peripheral device and a host device. The peripheral device may be connected to the host device. The speed of the peripheral device may be adjusted in response to one or more

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predetermined conditions. Dischler does not teach or suggest all the elements of the presently claimed invention (see page 3, paragraph 7 of the Office Action). Specifically, Dischler fails to teach or suggest a peripheral device having a speed that may be adjusted in response to one or more predetermined conditions, as presently claimed. The peripheral of Dischler does not have an adjustable speed.

EXPERT DECLARATION

EVIDENCE OF NON-OBVIOUSNESS

USB devices have three (3) operational modes (i) low speed, (ii) full speed and (iii) high speed (see ¶4 of the Declaration of Ronald H. Sartore). Prior to the USB 2.0 Specification, no commercial USB devices supported the high speed mode (see ¶5 of the Declaration of Ronald H. Sartore). A USB device cannot initiate the switch between the high speed mode and the full speed mode without re-establishing a connection with a host device by removing the physical cable, a process generally referred to as enumeration (see ¶6 of the Declaration of Ronald H. Sartore). Claim 2 of the present invention provides electrically disconnecting and reconnecting a peripheral at an adjusted speed, a process called re-enumeration (see claim 3) (see ¶7 of the Declaration of Ronald H. Sartore). U.S. Patent No. 6,311,287 to Dischler et al. does not contemplate electrically disconnecting and

reconnecting anything, which is consistent with its application in a microprocessor (see ¶8 of the Declaration of Ronald H. Sartore). Switching between speeds by electronically disconnecting/reconnecting a peripheral was not an obvious improvement (see ¶9 of the Declaration of Ronald H. Sartore).

EVIDENCE OF COMMERCIAL SUCCESS TO SUPPORT NON-OBVIOUSNESS

Cypress Semiconductor (the Assignee of the present application) began making USB 2.0 devices in 2002. Cypress continues to sell these products (see ¶10 of the Declaration of Ronald H. Sartore). Cypress USB 2.0 device products include Cypress's EZ-USB SX2, EZ-USB FX2 and EZ-USB AT2. Each of these products includes an apparatus comprising a peripheral device connected to a host device. A speed of the peripheral device is adjusted in response to one or more predetermined conditions (as in claim 1 of the present invention). The peripheral device is configured to electrically disconnect and reconnect at said adjusted speed to said host device (as in claim 2 of the present invention) (see ¶11 of the Declaration of Ronald H. Sartore). The sales of Cypress USB products are rapidly expanding into the widespread market of USB 2.0 devices (see ¶12 of the Declaration of Ronald H. Sartore). The invention has experienced significant commercial success. Sales for the product EZ-USB FX2 (a product that incorporates the present invention) amounted to approximately

929,930 units in 2002. The sales increased to 2,945,020 units so far in 2003. Therefore, the present invention has had a considerable amount of commercial success (see ¶13 of the Declaration of Ronald H. Sartore). Furthermore, in the attached Exhibit A, a press release shows that the assignee of the present invention, Cypress Semiconductor Corporation, has shipped at least 250,000,000 USB controllers. 79.3 million USB controllers were shipped in 2002 alone. This nearly doubles the rate of controllers shipped in 2001 (see ¶14 of the Declaration of Ronald H. Sartore). The commercial success of the present invention is evidence of non-obviousness.

NO MOTIVATION TO MODIFY REFERENCE

The assertion in the Office Action (page 3, paragraph 7) that "it would have been obvious ... to modify teachings of Dischler to utilize the device speed adjustment technique into a peripheral device since such utilization would have enabled a peripheral device to run at optimal speeds" is not sufficient to establish a *prima facie* case of obviousness.<sup>1</sup> Dischler is silent

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<sup>1</sup> M.P.E.P. §2143.01 (The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination), citing *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (Claims were directed to an apparatus for producing an aerated cementitious composition by drawing air into the cementitious composition by driving the output pump at a capacity greater than the feed rate. The prior art reference taught that the feed means can be run at a variable speed, however the court found that this does not require that the output pump be run at the claimed speed so that air is drawn into the mixing chamber and is entrained in the ingredients during operation. Although a prior art device "may be capable of being modified to run the way

regarding a peripheral device. Neither the Office Action mailed February 2, 2003 nor the Office Action mailed April 24, 2003 provides a suggestion or motivation that would lead one skilled in the art to substitute a peripheral device for the computer system of Dischler.

The position taken in the Office Actions that a peripheral device may be substituted for the computer system, without providing a specific motivation or suggestion in the reference to support such substitution is not proper (see *In re Fine*). The statement on page 8 that "any type of device may utilize this speed adjustment device" still does not provide a motivation to make the modification. Both Office Actions merely state a result, rather than providing a specific motivation or suggestion to support the combination. Clearly, the Examiner has failed to establish a *prima facie* case of obviousness (see *In re Fine*). As such, the presently claimed invention is fully patentable over Dischler and the rejection should be withdrawn.

Furthermore, the use of the general skill in the art (i.e., the Examiner quotes "a routineer in the data processing art") to supply missing knowledge or prior art to support an obviousness rejection is not proper. As stated by the Federal Circuit:

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the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.).

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.<sup>2</sup>

The conclusory statement that "It would have been obvious for one of ordinary skill in the art at the time of the invention to modify teachings of Dischler et al. to utilize the device speed adjustment technique into a peripheral device since such utilization would have enabled a peripheral device to run at optimal speeds" does not adequately address the issue of motivation to combine.<sup>3</sup> While the sentence has been repeated in both Office Actions (in several places), no details are present. The factual question of motivation is material to patentability and cannot be resolved on subjective belief and unknown authority. It is improper in determining whether a person of ordinary skill would have been led to the combination of references simply to use that which the inventor taught against its teacher. The Office Action fails to make the requisite findings based on evidence of record and fails to explain the reasoning by which the findings are deemed to support the conclusion. Therefore, the Office Action fails to meet the Office's burden of factually establishing a *prima facie* case of obviousness (MPEP §2142). As such, the presently claimed

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<sup>2</sup> W.L. Gore & Assocs. v. Garlock, Inc., 220 USPQ 303, 312-13 (Fed. Cir 1983).

<sup>3</sup> In re Loo, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

invention is fully patentable over the cited references and the rejection should be withdrawn.

Regarding claim 2, the cited passage of Dischler is silent regarding a peripheral device configured to electrically disconnect and reconnect at an adjusted speed, as presently claimed. As such, claim 2 is independently patentable over the cited reference.

Regarding claim 3, the cited passage of Dischler is silent regarding electrical disconnection/reconnecting comprising re-enumeration of the peripheral device. As such, claim 3 is independently patentable over the cited reference.

Regarding claim 4, Dischler is silent regarding a USB device. Furthermore, Dischler would not operate as a USB device (see ¶6 of the Declaration of Ronald H. Sartore). As such, claim 4 is independently patentable over the cited reference.

As such, the presently claimed invention is fully patentable over the cited references and the rejection should be allowable.

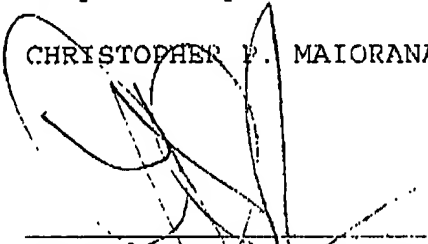
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office  
Account No. 50-0541.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.



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Christopher P. Maiorana  
Registration No. 42,829  
24025 Greater Mack, Suite 200  
St. Clair Shores, MI 48080  
(586) 498-0670

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